

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

5 **Listing of Claims:**

Claim 1 (Currently Amended): A counter comprising:

10 a plurality of state units for generating a state, each state unit having a corresponding clock end for receiving a clock having a plurality of pulses; wherein each said state unit is capable of updating ~~the~~ its corresponding state when receiving different pulses from the clock according to a predetermined law while each ~~of the state units~~ said state unit receives the clock from ~~the~~ its corresponding clock end; and

15 a clock gating circuit electrically connected to the plurality of state units for selecting at least one first state unit and at least one second state unit from the plurality of state units according only to ~~a fixed~~ an initial value and providing a triggering clock to the clock end of each said at least one first state unit and withholding the triggering clock from the clock end of each said at least one second state unit, such that second states corresponding to each said at least one second state unit are held constant while each ~~of the~~ said at least one first state ~~units~~ unit updates each its state corresponding to ~~the first state units~~ said at least one first state unit according to different pulses of the triggering clock; wherein the clock gating circuit ~~not providing~~ does not provide the triggering clock to each ~~of the second state units~~ said at least one second state unit according to each state changed of the said at least

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one first state unit, and ~~not withholding~~ does not  
withhold the triggering clock from each said at least  
one first state unit of the first state units. ; and  
a latch circuit connected to the clock gating circuit for  
5 storing the initial value.

Claim 2 (Currently Amended): The counter of claim 1  
wherein the clock gating circuit selects  
corresponding different said at least one first  
10 state units unit and said at least one second state  
units unit from the plurality of state units while  
the initial value changes.

Claim 3 (Currently Amended): The counter of claim 1 wherein  
15 each of the state units said state unit further comprises  
a setting end for receiving an initial state so that ~~the~~  
each said state unit outputs the initial state while ~~the~~  
each said state unit is first triggered by a clock pulse  
received from the corresponding clock end, then updates  
20 its corresponding state output when receiving a following  
pulse of the clock according to the predetermined law.

Claim 4 (Currently Amended): The counter of claim 3 wherein  
the counter is capable of setting ~~each~~ the initial state  
25 of ~~the~~ each said state unit from ~~each~~ the setting end of  
~~the~~ each said state unit according to the initial value  
while the clock gating circuit selects ~~the~~ said at least  
one first state unit and ~~the~~ said at least one second state  
unit according to the initial value.

30 Claim 5 (Cancelled)

Claim 6 (Currently Amended): The counter of claim 1 wherein  
each ~~of the state units~~ said state unit further comprises  
a flip-flop.

5 Claim 7 (Currently Amended): A method for a counter, the counter  
comprising:

a plurality of state units for generating a state, each  
state unit having a corresponding clock end for receiving  
a clock having a plurality of pulses; wherein each said  
10 state unit is capable of updating the its corresponding  
state when receiving different pulses from the clock  
according to a predetermined law while each ~~of the state~~  
~~units~~ said state unit receives the clock from the its  
corresponding clock end; and

15 a latch circuit connected to a clock gating circuit for  
storing an initial value;

the method comprising:

selecting at least one first state unit and at least one  
second state unit from the plurality of state units  
20 according only to ~~a fixed~~ the initial value and providing  
a triggering clock to the clock end of each said at least  
one first state unit and withholding the triggering clock  
from the clock end of each said at least one second state  
unit, such that second states corresponding to the each  
25 said at least one second state unit are held constant  
while each ~~of the first state units~~ said at least one  
first state unit updates ~~each~~ its state corresponding  
to ~~the first state units~~ said at least one first state  
unit according to different pulses of the triggering  
30 clock.

Claim 8 (Cancelled)

Claim 9 (Currently Amended): The method of claim 7 further comprising selecting different said at least one first state unit and said at least one second state unit from the plurality of state units while the initial value changes.  
5 ~~the at least one first state unit and the at least one second state unit according to the initial value for different initial values to select corresponding different first state units and second state units from the plurality of state units.~~

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Claim 10 (Currently Amended): The method of claim 7 wherein ~~each of the state units~~ said state unit further comprises a setting end for receiving an initial state so that ~~the~~ each said state unit outputs the initial state while ~~the~~ each said state unit is first triggered by a clock pulse  
15 received from the corresponding clock end, then updates its corresponding state output when receiving a following pulse of the clock according to the predetermined law.

20 Claim 11 (Currently Amended): The method of claim 10 further comprising setting each the initial state of ~~the~~ each said state unit from each the setting end of ~~the~~ each said state unit according to the initial value while selecting ~~the~~ said at least one first state unit and the said at least  
25 one second state unit according to the initial value.

Claim 12 (Cancelled)

Claim 13 (Currently Amended): The method of claim 7 wherein  
30 ~~each of the state units~~ each said state unit further comprises a flip-flop.

**Remarks/Arguments**

**Priority**

**Examiner:**

5           It is noted that the filing number on the priority documents submitted does not match the priority number in applicant's declaration.

**Response:**

10           Attached at the end of this response are photocopies of the priority document and the Combined Declaration and Power of Attorney specifying the priority document according to our records. As can be seen, the declaration gives a filing date of 08/01/2002 and a filing number of  
15           91117385, both of which match the application date (08/01/2002) and the application number (091117385) on the priority document. The serial number 09111017832 listed at the bottom merely represents the specific certified copy of the priority document.

20           Should our records be different from those received at the USPTO, the Applicant respectfully requests notification at the earliest possible convenience so that appropriate action can be taken.

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## Informalities

### Examiner:

Claims 1, 3, and 11 are objected to because of the following informalities: Claim 1, lines 14-17 are not grammatically clear. It is recommended that applicant substitute "wherein" before "the clock grating circuit" on line 14, substitute "does not provide" for "not providing" on lines 14 and 15, and substitute "does not withhold" for "not withholding" on line 15. In claim 3, it is recommended that "first" should be inserted before "triggered" on line 3 to improve clarity because it appears as if this operation only takes place initially or after a reset operation and, on line 4, it is recommended that "its" should be inserted before "corresponding". Claim 11 requires a period at the end of the sentence. Appropriate action is required.

### Response:

Claims 1, 3, and 11 have been amended as suggested by the Examiner. No new material has been introduced. Reconsideration of claims 1, 3, and 11 regarding cited informalities is respectfully requested.

## Claim Rejections - 35 USC 112

### Examiner:

Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enable requirement.  
5 The specification does not teach an invention in which the first and second state units are selected according to only a fixed initial value.

### Response:

10 Without disclaimer of any kind regarding their merits as originally filed, independent claims 1 and 7 have been amended such that the limitation "a fixed initial value" has been changed to "an initial value" (4<sup>th</sup> paragraph of the "Detailed Description of the Preferred Embodiment").  
15 No new material has been introduced.

As can be clearly seen in Fig. 8, the initial value stored in the latch circuit 96 determines which state units are selected as "at least one first state unit" and which are  
20 selected as "at least one second state unit". It may be necessary for the CLK3 and the EN6 to both at least pulse high for the gating circuit to function, but they play no part in the actual selection of units. The initial value completely controls which state units are selected.

25 As the allowability of claims 2-6 and 8-13 ultimately depends upon the allowability of independent claims 1 and 7, the Applicant respectfully requests reconsideration of claims 1-13 under U.S.C. 112, first paragraph.

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**Examiner:**

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which  
5 applicant regards as the invention.

**Response:**

Claims 1, 3, 4, 7, 10, and 11 have been amended as suggested by the Examiner to correct antecedent  
10 deficiencies. Claims 1-4, 6-7, 9-11, and 13 have been amended to clarify how many state units are being referenced. Claims 5, 8, and 12 have been cancelled and are no longer in need of consideration. Claim 9 has been amended to more particularly point out and claim the invention and is  
15 believed now to be similar in nature to claim 2. No new material has been introduced.

Every effort has been made to provide the required consistency, understandability, and proper antecedent  
20 basis throughout all claims remaining in the application. In light of the amendments shown in the "Amendments to the Claims" section of this response, the Applicant respectfully requests reconsideration of claims 1-4, 6-7, 9-11, and 13 under 35 U.S.C. 112, second paragraph.

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### Allowable Subject Matter

**Examiner:**

5           Claims 5 and 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

**Response:**

10           The Applicant acknowledges and appreciates the allowability of claims 5 and 12 if rewritten appropriately. Without any disclaimer of any kind regarding the merits of any or all claims as originally filed, base claim 1 has been amended to include the limitations of claim 5 and base  
15           claim 7 has been amended to include the limitations of claim 12. Claims 5 and 12 have been cancelled. No new material has been introduced.

20           In addition to the cited amendments concerning the allowability of claims 5 and 12, the Applicant has made every effort to comply with suggestions offered by the Examiner to overcome the cited 35 U.S.C. 112 rejections as previously discussed. As a result, and because the  
25           allowability of claims 2-4, 6, 9-11, and 13 ultimately depends upon the allowability of their respective base claims 1 and 7, it is believed that the Examiner may now consider all claims remaining in the present application allowable over Bombal et al. and all other known prior art.

30           Therefore, the Applicant respectfully requests reconsideration and allowance of claims 1-4, 6-7, 9-11, and 13.

Sincerely,

5 Winston Hsu

Date: 5/26/2004

Winston Hsu, Patent Agent No.41,526

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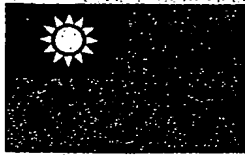
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REPUBLIC OF CHINA

茲證明所附文件，係本局存檔中原申請案的副本，正確無訛，  
其申請資料如下：

This is to certify that annexed is a true copy from the records of this  
office of the application as originally filed which is identified here

申請日：西元 2002 年 08 月 01 日  
Application Date

申請案號：091117385  
Application No.

申請人：威盛電子股份有限公司  
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